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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,499	02/05/2002	Klaus Markhoff	MG-2036DIV.	7055

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EXAMINER

KENNY, STEPHEN

ART UNIT	PAPER NUMBER
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3726

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DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,499

Applicant(s)

MARKHOFF ET AL.

Examiner

Stephen J Kenny

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/403,359.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Claims 1-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group I, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in a telephonic interview.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-17, & 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 does not positively recite any method or process steps. Applicant is merely claiming providing a pre-existing cylinder.

Regarding claim 20, the phrase "most of the pressure" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "most of the pressure"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Objections

Claims 18 & 20 are objected to because of the following informalities: Claim 18 depends on non-elected claim 10, and claim 20 depends on non-existent claim 30. Appropriate correction

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is required. For the sake of expediting prosecution, the examiner assumes that claim 18 is intended to be dependent on claim 11; and claim 20 is intended to be dependent on claim 19.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Prior Art (AAPA).

Applicant discloses a preformed pressurized gas cylinder used at "lower" filling pressures for compressed liquefied or dissolved gases (page 2, lines 1-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Hext (US Patent No 4486938) and further in view of Kipling (US Patent No 4227292).

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Regarding claims 11, & 19 AAPA discloses preformed pressurized gas cylinder used at “lower” filling pressures for compressed liquefied or dissolved gases, as well as a liner for use in a composite cylinder for a “higher” filling pressure wherein said liner is wrapped over a substantial part of its length with composite fibers (page 2, lines 1-17).

AAPA does not disclose the machining of a liner out of a pre-existing gas cylinder for use in composite cylinder of higher filling pressure.

Hext discloses the remanufacturing of a cylinder liner by removing portions of interior of the liner so as to form a larger diameter liner (column 4, lines 50-57).

Kipling discloses remanufacturing of the external or “master” cylinder in order to accommodate a new, larger diameter liner (column 1 line 63 – column 2, line 10).

The remanufacturing of liners (as taught by Hext) as well as pressure cylinders (as taught by Kipling) is advantageous in that it reduces the amount of material costs, as well as extending the service life of the cylinder. Furthermore, the initial liner of the Hext disclosure can be considered the functional equivalent of the lower filling pressure cylinder as claimed by applicant; thereby the remanufacturing of the Hext liner can be interpreted as providing a liner for a composite cylinder, characterized in that the liner is in the form of a preformed second hand cylinder with a lower filling pressure. Alternatively, the teachings of Hext & Kipling indicate that the remanufacturing of pressure cylinder parts is widely known and the step of interchanging a pressure cylinder to serve as a liner, would be readily recognized by an artisan of ordinary skill in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to form a composite gas cylinder as disclosed by AAPA by remanufacturing

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the lower pressure gas cylinder to serve as a liner, as taught by Hext & Kipling, in said composite gas cylinder, in order to realize the advantages discussed above.

Regarding claim 12, Hext discloses machining the liner (or pre-existing cylinder) to reduce its wall thickness (column 4, line 54).

Regarding claims 13-17, AAPA discloses the pre-existing cylinder at a pressure of 150-200 bar (page 2, line 3) & the higher filling pressure is 300 bar (page 2, line 5).

Regarding claim 18, AAPA discloses a seamless metal liner (page 2, line 12); it is inherent that the liner be vacuum tight in order to hold the pressure within the cylinder.

Regarding claim 20, as best understood in regard to the U.S.C. 112 rejection above, it is inherent that most of the pressure resistance of the composite cylinder is from the liner since the liner is on the interior of the cylinder and therefore most directly exposed to the pressure of the gas/liquid.

Conclusion

The prior art made of record on the attached PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J Kenny whose telephone number is 703-306-0359. The examiner can normally be reached on mon - fri 9am - 5pm.

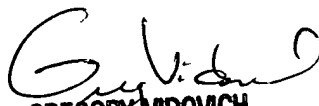
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

sk *Sk*
June 25, 2003


GREGORY VIDOVICH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700